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1. A method of treating a subject having a cancer involving loss or reduction in p53 function or p53 signaling, the method comprising:

a) determining the level of poly(A)-specific ribonuclease (PARN) in:

i) a test sample obtained from the subject, and

ii) optionally a control sample;

b) optionally obtaining a reference value corresponding to a level of PARN, wherein the level of PARN in the test sample relative to the control sample or the reference value indicates the presence or absence of the cancer involving loss or reduction in p53 function in the subject; and,

c) identifying the subject as having a cancer involving loss or reduction in p53 function based on the level of PARN in the test sample and administering an effective amount of a PARN inhibitor to the subject to treat the cancer, or

d) identifying the subject as having the cancer not involving loss or reduction in p53 function based on the level of PARN in the test sample and withholding the administration of the PARN inhibitor to the subject, and optionally, administering a cancer therapy other than the PARN inhibitor to the subject to treat the cancer.

2. The method of claim 1, wherein the control sample is obtained from:

a) an individual belonging to the same species as the subject and not having cancer,

b) an individual belonging to the same species as the subject and known to have a cancer not involving loss or reduction in p53 function or p53 signaling, or

c) the subject prior to having the cancer, and the method comprises identifying the subject as having the cancer involving loss or reduction in p53 based on higher level of PARN in the test sample as compared to that of the control sample.

3. The method of claim 1, wherein the control sample is obtained from an individual belonging to the same species as the subject and known to have a cancer involving loss or reduction in p53 function or p53 signaling and the method comprises identifying the subject as having the cancer involving loss or reduction in p53 based on the level of PARN in the test sample not being different than that of the control sample.

4. The method of claim 1, wherein the reference value corresponds to the level of PARN associated with:

a) the absence of a cancer, or

b) the presence of a cancer not involving loss or reduction in p53 function or p53 signaling and the method comprises identifying the subject as having the cancer involving loss or reduction in LKB1 based on higher level of PARN in the test sample as compared to the reference value.

5. The method of claim 1, wherein the reference value corresponds to the level of PARN associated with the presence of a cancer involving loss or reduction in p53 function or p53 signaling and the method comprises identifying the subject as having the cancer involving loss or reduction in p53 based on the level of PARN in the test sample not being different than the reference value.

6. The method of claim 1, wherein the PARN inhibitor is a small-inhibitory RNA (siRNA), short hairpin RNA (shRNA), bifunctional RNA, antisense oligonucleotide, anti-PARN antibody or functional fragment thereof, ribozyme, deoxyribozyme, aptamer, small molecule or gene therapy that knocks out PARN.

7. The method of claim 6, wherein the PARN inhibitor is the siRNA, shRNA, bifunctional RNA, antisense oligonucleotide, ribozyme, deoxyribozyme, or aptamer, and is encoded by a nucleic acid, or wherein said antisense oligonucleotide is selected from the group consisting of SEQ ID NOs 12-15.

8. (canceled)

9. The method of claim 1, wherein a cancer therapy other than the PARN inhibitor is administered to the subject identified as having the cancer not involving loss or reduction in p53 activity or p53 signaling.

10. The method of claim 9, wherein the cancer therapy other than the PARN inhibitor is radiotherapy, chemotherapy, surgery, immunotherapy, kinase inhibition, monoclonal antibody therapy, or a combination thereof.

11. The method of claim 1, wherein a cancer therapy in addition to the PARN inhibitor is administered to the subject identified as having the cancer involving loss or reduction in p53 or p53 signaling.

12. The method of claim 11, wherein the cancer therapy in addition to the PARN inhibitor is radiotherapy, chemotherapy, surgery, immunotherapy, kinase inhibition, monoclonal antibody therapy, or a combination thereof.

13-18. (canceled)

19. The method of claim 1, wherein the levels of PARN are determined my measuring levels of PARN RNA transcripts in the test sample and/or control sample.

20-45. (canceled)

46. A method of reducing the severity of one or more symptom(s) of cancer in a patient comprising the steps of:

(i) measuring one or more feature(s) in a cancer cell(s) from said patient selected from the group consisting of: levels of poly(A)-specific ribonuclease (PARN), levels of phosphorylated poly(A)-specific ribonuclease (PARN), and levels of growth arrest and p53 protein or mRNA; and

(ii) determining from the measurements in step (i) whether said cancer cell(s) in said patient has one or more feature(s) of a repressed p53 signaling pathway selected from the group of: active or elevated PARN levels; decreased p53 protein or RNA levels; decreased or repressed p53 signaling; and